

HPL Technical data sheet following EN 438

property	test EN 438	test procedure	measure unit	HG Horizontal	VG Vertical
specific weight		weight in kg of a dm ³ of laminate or of 1 m ² in thickness 1mm	kg/dm ³	1,4	1,4
thickness tolerance	point 5	measures the difference between the nominal thickness and the actual laminate thickness	mm	0,5 ≤ t ≤ 1,0 mm; ±0,10 1,0 ≤ t ≤ 2,0 mm; ±0,15	0,5 ≤ t ≤ 1,0 mm; ±0,10 1,0 ≤ t ≤ 2,0 mm; ±0,15
surface wear resistance	point 10	the taber test measures the number of cycles necessary to abrade the laminate surface with sand paper. IP is initial point, when colour begins disappearing FP is final point, when colour has disappeared at 95%. IP+FP divided 2 is the AP average point.	Taber cycles IP starting point	Solid color ≥ 150 Printed ≥ 100	≥ 50
resistance to immersion in boiling water	point 12	measures the mass and thickness increase of a laminate after a two hour immersion in boiling water	appearance gloss appearance non-gloss	3 4	3 4
resistance to water vapour	point 14	measures the appearance of a laminate exposed to water vapour for 1 hour	appearance gloss appearance non-gloss	3 4	3 4
resistance to dry heat at 160° C	point 16	measures the aesthetic properties of a laminate bonded onto an 18 - 20 mm chipboard upon which a metal block at the initial temperature of 160° C is placed and left to cool for 20 minutes.	appearance gloss appearance non-gloss	3 4	3 4
dimensional stability at high temperature	point 17	measures the changing in length and width after 24 hours at 70°C and 96 hours at 40°C and 90 - 95 % relative humidity	% max longitudinal % max transversal	0,55 1,05	0,75 1,25
resistance to impact by small diameter ball	point 20	measures the minimum strength necessary to a steel ball to damage a laminate bonded to a 18 mm thick particle board	N (min)	20	15
resistance to cracking	point 23	measures the aesthetic properties of laminate slightly curved and heated at 50°C for 6 hours	grade (min)	4	4
resistance to scratching	point 25	measures the minimum strength necessary to a diamond point to scratch the laminate surface	rating	3	2
resistance to staining	point 26	measures the residual surface mark of a series of staining agents left in contact with the laminate surface	Appearance-Group 1/2 Appearance-Group 3	≥ 5 ≥ 4	≥ 5 ≥ 4
stains and dirt	point 4	measures the maximum area of stains and dirt admitted per sqm of laminate. Such an area can be concentrated in a single point or subdivided in numerous number of small faults.	mm ² /m ²	≤1	≤1
fibres and hairs	point 4	measures the maximum length of hair and fibre for sqm of laminate	mm/m ²	≤10	≤10
length and width	point 6	measures the length and width with a metal tape or rule	mm/m	+ 10 / - 0	+ 10 / - 0
edge straightness	point 7	measures the deviation difference allowed for each meter of edge from perfect linearity	mm/m	≤1,5	≤1,5
edge squareness	point 8	measures the difference allowed for each meter of edge from perfect orthogonality	mm/m	≤1,5	≤1,5
flatness tolerance	point 9	measures the maximum curvature of a laminate layed flat with the concave side up	mm/m	≤60	≤60